

AMENDMENT TO THE DRAWINGS

Please amend figure 3 to show the power source 251 for piezoelectric 224, Figure 6 to show the connection between drive electronics 611 and piezoelectrics 502 and 503, and Figure 9A to also show the power sources 950, 952 for piezoelectrics 904 and 908. Applicant respectfully submits that the voltage amplitudes of energy delivered to the piezoelectric as well as the frequencies are described in detail in paragraphs 31 and 32 and such energy must come from power sources. Thus Applicant respectfully submits that no new matter is being added.

REMARKS

In an Office Action dated September 7, 2005, claims 6-10 were rejected under 35 U.S.C. 112 and the drawings rejected under C.F.R. 1.83(a) because the drawings do not show clearly how the invention is arranged. Applicant has amended the drawings by providing replacement drawings herewith. Claim 22 was rejected under 35 U.S.C. 112 second paragraph as being indefinite for lacking an antecedent basis for the interface and the single plane. Appropriate correction has been made. Applicant has also noted that in the original application, two versions of claim 26 were accidentally filed. Applicant has cancelled the second version of claim 26 and added it as new claim 40. The first version of claim 26 remains and has been amended.

In the Office Action, claims 1-3, 13, 14, 16, 22-22, 25, 26, and 29-34 were rejected under 35 U.S.C. 102(b) as being anticipated by Mori et al. (U.S. 4,613,782). Claims 1-3, 13, 20-22, 30-32 were also rejected under 35 U.S.C. 102(b) as being anticipated by Matsuo et al. (U.S. application 2002/0038988 A1). Finally, Claims 1-3, 6, 8, 10, 13, 16, 20-22, 30-32 were rejected under 35 U.S.C. 102(b) as being anticipated by Shibatani et al (U.S. 6,661,154). Claims 4, 5 and 15 were objected to as dependent upon a rejected base claim but would be allowable if rewritten in independent form. In response Applicant has rewritten claim 4 in independent form. Applicant has also amended the remaining claims to clarify that the object moves in at least two directions approximately tangential to the surface at the point of contact, the two directions not 180 degrees from each other. Applicant respectfully submits that none of the prior art references describe the claimed structure which enables an object to be moved in multiple degrees of freedom in a plane.

In Mori, although the piezoelectric elements 1 and 2 are positioned at a 120 degree angle, the resultant motion in a lateral plane, the plane tangential to the point of contact, is 180 degrees. Thus the object can only be moved with only one degree of freedom. Specifically, the object can be moved only in a linear direction (one dimension) of the two dimensional lateral plane tangent to the point of contact.

Likewise, Shibatani and Matsuo also have piezoelectrics oriented to provide a tangential component of force in only one direction. Applicant's claimed invention enables movement in at least two directions in the plane tangential to the surface at the point of contact, wherein the two directions are not 180 degrees opposite of each other.

Applicant has added new claims 35-38 to claim at least two such biaxial motors working together to enable a range of motion. New claim 39 specifies the lateral motion and the at least two degrees of freedom.

In view of the preceding amendments and remarks, Applicant respectfully submits that the claims as amended are allowable over the cited prior art reference, and allowance is hereby respectfully requested. In the event that the Examiner believes a teleconference would facilitate prosecution, Applicant respectfully requests that Examiner contact the undersigned.

Respectfully submitted,



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